ELECTRIC SCIENCE.

Eighth of a Series of Articles by C. J. Kintner, Principal Examiner, Class of Electricity. United States Patent Office. Light, says Clerk Maxwell, is a strain or force acting through a medium of transmission, and that medium, if we refer to smilight, is the ether in space through

which it transmits this strain from the sun to the eye. There is no wide difference in principle between the light emitted from a candle, a gas jet, the sun, or an electric famp. Each kind of light, like sound and heat, is the result of rapid vibratious or undulations imparted to the elements of the medium through which it reaches the eye. medium through which it reaches the eye. We light a tallow candle with a friction match, which, in turn, is lighted by heat due to the vibrations imparted to its molecules by friction. In the candle, when once lighted, the action is purely chansent, in fact is nothing more loss than a process of exidation existing leatween the oxygen of the atmosphere and the combustible carbon of the tallow; this exidation evolves heat, and the heat in turn is sufficient to set up rapid molecular. urn is sufficient to set up rapid molecular fibrations in the air which affect the opti cal nerve in the nature of a sensation known as light, just as sound affects the auditory nerve by undulatory vibrations of air set up by a vibratory body. In the ga-jet the process is much the same, the oxidajet the process is much the same, the oxida-tion taking place between the element of carbon found in it and the oxygen of the atmosphere as before. With sun light the phenomenon is probably electrical rather than chemical, inasmuch as it and the elec-tric light are almost identical in their bature, a fact made known by the spec-trum, which gives almost the same analysis for both.

In the electric are light the process is, in In the electric are light the process is, in a measure, similar, or at least bears a general resemblance, to that of the caudie or the gas jet insempted as there is some combestion, while in the meandescent light there is a radical difference, no combustion taking place at all. Before discussing this matter further we will first note the fact that the patent office recognizes three classes in the set of electric lighting, as follows: I. Electric lighting, lights, orc. 2. Electric lights; lights, incandescent, 3. Electric lighting; lights, systems, and appliances.

By are lights is meant all electric lights By are lights is meant all electric lights formed by the action of electricity at the junction of two electrodes, so that they waste away by combustion. This includes also what we sometimes denomined semi-incandescent lights, or those which burnonly by incandescence or a glow at the junction of two electrodes without actual separation, and hence without an are, such, for instance, as the Wardermann.

By incandescent lights we mean all elec-

By incandescent lights we mean all elec-By incandescent lights we mean all elec-tric lights which burn by virtue of the glow due to the best generated by an electric current in a continuous conductor or fila-ment as in the Edison, the Weston, the Maxim, &c.

By systems and appliances we mean all apparatus involved in and necessary to the complete electric light plant; such as reg-ulators, fixtures, fusible cut-outs, switches, complete systems of wiring, involving pro-nortions, &c.

Sectricity, as we have heretofore indi-

Electricity, as we have hereforce indi-cated, a simply an imponderable agent known only by its results.

It is in short not matter, but is a property of matter, and its peculiarities are more notably visible in the electric light than elsewhere. If a current of electricity be passed through a conductor it will gener-ate lest in it according to a known law. Now we, know that a given amount of heat will develop a known amount of light: remembering that all light is the result of heat it is easy to arrive by this formula at a

heat it is easy to arrive by this formula at a definite conclusion as to the amount of heat, definite conclusion as to the amount of heat, and hence light, a given generator will develop, and under varying conditions. It is also known that a given amount of heat has its exact equivalent in work of energy. In other words that it takes a certain amount of work or energy to develop a specified amount of heat.

Knowing these facts we can readily compute what amount of horse-power or energy is required to develop a specified amount of heat and hence also of light. Of course the computations are quite compileated, as

of heat and hence also of light. Of course the computations are quite complicated, as they involve many elements such as they involve many elements such as the quantity and quality of coal to be burned under the boiler, the character of the steam engine, the loss by friction of parts, the character of the dynamo, including its resistance, &c., the resistance of the outlying circuit including each lamp and the peculiar characteristics thereof, the leakage of current, &c.

As early as 1800 Sir Humphry Davy discovered that if two carbon pencils or elec-trodes be joined end to end in an electric trodes be found and to and in an electric circuit, with a battery of sufficient electromotive force or pressure, say lifty Bunsen cells, and then the pencits be gradually separated, a brilliant light would result in the shape of a curve or are between them until the points of the pencils had burned away too far to allow the current to pass. The are thus formed is the result of the high resistance offered to the current of electricity at the ends of the carbons, and is caused by the glow or incandescence of a stream of carbon vapor flowing between the is caused by the glow or incandescence of a stream of carbon vapor flowing between the carbon points with the current of electric-ity. This was the origin of the electric-ity. This was the origin of the electric-light. It took its name from the brilliant curved are always seen between the carbons of an arc lamp when they are separated a sufficient distance. Sir Humphry, elated at his discovery, supposed he had found a new method of artificial lighting, destined to revolutionize the art of illumi-nation. Little did be imagine that it would be over three-quarters of a century before this form of light would be made available.

before this form of light would be made available.

Two things prevented his success, viz., a proper regulator to keep the carbon points always at the same distance, and an economical generator to furnish the current at reasonable cost. In our article upon batteries it will be remembered we spoke of the wonderful amount of energy which has been exercised by inventors to produce a battery for this purpose, and yet without avail.

hattery for this purpose, and yet without avail.

Early in this century a perfect are-light regulator was developed for feeding the carbons, and as early as 1836 Mesars. State, Du Bosq, Sellon, Browning, and others had invented and patented in England are lamps complete in every detail, and one of which, for use where only one lamp is required in a circuit, is perhaps as good as can be found to-day. To serve its purpose well an arc light should feed the carbons steadily and with such regularity as to prevent dickering or jumping of the light.

One of the earliest forms of the arc lamp, and one of the best, the Sellon, is composed of the framework sustaining a spring-impelled-clock mechanism for advancing and retracting the carbons attached to rack lars actuated by the clock mechanism.

bars actuated by the clock mechanism This mechanism is controlled by an electro This mechanism is controlled by an electromagnet in the direct circuit with the carbon pencils, the armature of which acts as a detent to stop and release the mechanism so as to allow the carbons to be held or advanced as the current becomes stronger or weaker by virtue of their approach or separation. It will be understood that varial of these lights can be operated on a single circuit for the reason that when the carbons of any one lamp become which separated circuit for the reason that when the carbons of any one lamp become widely separated the magnets will feed the carbons in all the lamps at once, and thus soon feed them all together, except one pair, which will continue to turn after the others have gone out. The desirability to thus arrange lamps in series or tandem in a single circuit for commercial use, set electricians to solving the problem known as "dividing the electric are" for the purpose of allowing each lamp to feed its carbons independent of the others. It was not solved until 1856 when two Frunchmen, Messes, Lacassague and Theirs, hit upon what is known as "the derived or shunt circuit" system, in which there are two electromagnets for each lamp, one in the main or cuit" system, in which there are two electro-magnets for each lamp, one in the main or are circuit, and another of very high resist-ance in a by-path or abunt circuit, passing entfrely around the lamp. The first electro-magnet in the main circuit acts to separate the carbons, and the other electro-magnet acts against it and tends to cause the car-bons to go together when they become too widely separated. The resistance offered by the are as the carbons approach and re-cede causes the current to fluctuate between it—the are circuit and the shunt circuit. t—the arc circuit and the shunt circuit and thus regulate the feed of the carbons and thus regulate the feed of the carbons. The mechanism, however, was clumsy, and the lamp is now of no special value, except that it stands as the parent of what is known as the shunt or by path system of dividing the arc, which is now generally used in all are light systems, and notes an important step in are lighting.

Next, in 1877, came Brush, Heffner, Altoneck, and Weston, who improved treat the

step in are lighting.

Next, in 1877, came Brush, Heffner, Altomeck, and Weston, who improved upon the
lamp of Lacassague and Theirs, and made
it practical by improving the mechanical
parts so that to-day the Brush company are
running as high as eighty lights in a single

circuit, with a dynamo, machine baving an circuit, with a dynamo machine having an enormous electro-medite force.

There exists very lively competition in are lights, and there have been granted to date more than 500 patents. An important lamp was made by Jablochicoff, which is simple and ingentows. It is known as the electrical candle, and is designed to do away with all regulating apparatus. It consists of two curion sticks apparated by a fasible insulating material, and inving a lighting or are starting device at their upper circl. Several of these impass are connected in series, and the arc forms on starting the dynamo between the ends of the carbons, and as they have down the fusible material is burned away. The simplicity of this improminents it, and it is largely used in Paris.

The are lights generally in use in this city The are lights generally in use in this city tre known as the Thomson and Houston pattern, and are what are styled positive cod-being almost entirely free from flicker, reg and of great efficiency. Their steadieses is due to the positive feed, and also to mefficient regulator at the dynamo maintenance.

thins.

Our systems of arc lighting are very complete, and for street use or large areas there can be no question as to their superforty over gas or other existing artificial

The incandescent lamp, like the arc, came

The incandescent lamp, like the arc, came into existence early in the present century, and was forced, like its fellow, the arc lamp, to await the alvent of an economical generator of electricity.

The first lamp of this character of which we have any reliable record was invested by star King, a young man from Cincinnati, Oblo, as early as 1835.

It consisted of a carbon strip bent in borseshoe form and inclosed in an exhausted globe of glass, to the exposed ends of these strips a battery was connected, and if an electrical current of sufficient quantity was forced through it, a heliliant hight resulted by reason of the rapid vibrations transmitted to the molecules of the carbon by the passing current. Combustion is rendered impossible because the globe is devoid of oxygen, King, etated with his propects, went to England to take out patents. He met with great encouragement, but was swindled out of his English patents by an unscrupulous scommarel, and hefultimately returned to America ad Ital

patents by an unscrupulous sconnard, and hefultimately returned to America and died roken-hearted. He never patened it in But little was done in the art in advance

But little was done in the art in alvance of what King had done until Koan Kossloff, Sawyer and Mann, Edison, Weston, and Swan came into the field, from 1871 to 1880. The lamps of these inventors do not differ in any startling manner among themselves, and ore all based upon the tilea developed by King, that it is necessary to prevent combustion of the filament by exhausting the sit. Sawyer and Mann filled the globe with

Sawyer and Mann filled the globe with nitrogen and other non-combustible gases. To Edison, perhaps more than to any other modern inventor, belongs the credit of having developed the incandescent lamp to its present point of efficiency, for the reason that he saw the necessity of as complete exhausten of the globe as possible, and of furnishing each lamp with as high resistance as possible, so that many lamps can be connected in what is known as multiplee are, that is to say, connected side by side between two main conductors, so that each lamp takes its proportion or cannot be successful to the properties of countily. side between two main conductors, so that each ismp takes its proportion or quantity of the current from the two main wires connected to the dynamo. In are light systems the lamps are connected in series or tandem, so that when all the lamps are in operation the resistance offered to the passage of the current through the circuit will be equal to that of the conductors joining the lamps plus the sum of the air spaces made by the separation of the carbons at the arc, so that if, as in the Brush system, we have eighty lights whose carbons are separated each about an eighth of an inch, there will be a total space of 80 divided by 8, or 10 inches, to be bridged by the current. Now, the resistance of an are lamp varies from three to five ohms or units of resistance. A circuit containing eighty lamps, or about 300 ohms resistance, would require an enormous electro-motive force.

Now the quantity of current in such a system is a constant factor, while the ten-sion or pressure should vary directly with the number of lamps because the resistance

the number of lamps because the realistance increases in the same proportion.

With incandescent lamps the reverse is true, for the reason that as we add lamps we decrease the resistance; for we are by so doing offering new or additional paths for the current and each path so added offer a decrease of resistance to the total electric current. Deace in such a system we must keep the electro-motive force or pressure constant and increase the quantity of current; for heat and hence light, so we have seen, is developed directly in proportion to the square of the quantity of current flowing.

ing.
In the Edison lamp a fine filament of carboulzed lemboo is used. In the Crookes lamp the diament is made of animal or veg-etable matter, while in the Maxim it is car-

ctable matter, while in the Maxim it is car-boulzed paper. Swam uses carbonized thread, and Weston what is known as "tauadine," an amorphous substance com-posed of carbonized celluloid.

With this material he is enabled to pro-duce filaments of higher resistance for a given diameter and length than with any substance heretofore known. It is also very durable, and constitutes a decided advance in the art.

n the art. There has of course been marked improve There has of course been marked improvement in inatters of details accompanying these systems of lighting, which lack of space prevents us from commenting upon. In our opinion, there is no question as to the feasibility of electric lighting for domestic use. As to its cheapness there can be no doubt, for the reason that the health-preserving qualities of the heandescent light are of such vital importance that the consumer should not hesitate for a moment to consider its cheapness established in point of fact, though the actual cost be double that of gas.

If we stop to consider that each gas jettin a room does more to vitiate the atmosphere than the breathing of two persons: that it heats unduly in summer time; that danger of fire is four-fold more than with the fucandescent light; that for cleanliness gas is not to be compared with it; that its light is steadier, brighter, and easier upon the eyes; that it is more like sunlight than any oxisting strificial light, and that it is odorless, we will not hesitate to accept it at any price within our means.

we will not hesitate to accept it at any price within our means.

There is no question but that the systems of incandescent lights are feasible in sec-tions where the power can be centrally lo-cated, and particularly is this true where water power is available.

We prophess a wonderful future for this kind of lighting, and this, too, not far dis-tent.

ant. The concluding articles of this series, two in number, upon the telephone and phonograph, will not be prepared for publication until the latter part of January.

Nervous Debilitated Man, Nervous Debilitated Man, You are allowed a free trial of thirty days of the use of fir. Dye's celebrated Voltale Belt, with electric suspensory appliances for the speedy relief and permanent curs of nervous detailty, loss of vitality and manhiood, and all kladred troubles: also for many other diseases. Complete restoration to health, vigor, and manhood guaranteed. No risk is incurred. Blustrated pamphicis, with full information, terms, etc., maited free by addressing Voltaic Belt Company, Marshalt, Nick.

The Result of Democratic Example.

The Result of Democratic Example, (Columbus Dispatch (Ind.))

History in a mutchell: Slaveryl War! I Freedom. Enfranchisement of the late slaves. Quariel about this enfranchisement. Alleged fraud and intimidation by the late slaveholders against the newly enfranchised freedmen. Alleged fraud by the friends of the freedmen in a professed attempt to do them justice. Out of this, and spreading into states that hitherto had an houest ballot and a fair count, sprang the Cincinnati context. These things cannot stop, if fostered; and if not stopped, what is to become of the country? But one result is possible. The people are all right. The scheming men who are grasping for political power, and the thieves and forgers who are assisting them, must be suppressed.

A Valuable Medical Treatise. A Valuable Medical Treatise.

The edition for 1885 of the stering Medical Annual, known as Hostetter's Alminac, is now ready, and may be obtained from of east, of dramphenend concert constry dealers in all parts of the United States, Mexico, and indeed in every civilized portion of the western hemisphere. This alternate has been issued requisitly at the commissionment of every year for ever one-fifth of a continy. It combines, with the soundest practical advice for the preservation and restruction of health, a large amount of interesting and annualog light reading, and the scalender, astronomical calculations, chromological Reass, &c., are prepared with great care, and will be found of infratey assurate. The interest of dissellers at humans for 1885 will probably be the largest edition of a medical work ever published in any country. The proprictors, Alesses Hostetter & Co., Pittsburg, Pa., ou receipt of a 2 cent stame, will Erread a cap by mail to any propose who cannot procure one in his neighborhood. Passengers on a Sing Sing Train Sympathize with a Desperate Looking

Man.

Four well-dressed mon occupied a double seat on a train of the Hudson River raliroad that left New York at 9 o'clock on the morning of one day last week. The one who sat nearest the window and facing the forward end of the car was a man of medium stature who wore a sandy mustache and seemed very much depressed. He kept his eyes fixed upon the floor most of the time. Occasionally he sighed deeply, and east wistful glances out of the window as the train rushed past the fields and woods. His

companions paid the neuton and woods. Its companions paid tittle attention to him, but conversed among themselves. Soon after the train left Peckskill one of the men stopped a brakeman who was go-ing through the car, and asked quietty: "Will you bring the prisoner a glass of water?"

"Will you bring the prisoner a glass of water?"

The brakeman brought the water, and in less than five minutes word was spread through the car that the sad man by the window was a prisoner on his way to Sing Sing, and that the three men with him were sheriff's deputies, who had him in charge. Men and women turned in their seats to look at the unfortunate, and when the conductor came through to look at the tickets he asked in a whisper:

"What's his name?"

"Mackay," replied one of the deputies:

"John W. Mackay."

"I've heard his name," said the conductor, "Let's see; what was't he was convicted of?"

"Forgery: ten years," responded the

"Forgery; ten years," responded the

"Oh, yes, I remember; desperate-looking man," the conductor said, and went on man," the conductor said, and went on his way.

The prisoner's name was spread through out the ear, and when the length of at term was made known greater curiosity than ever was indicated by the passengers. Men came in from the other cars to look at him. When the prisoner happened to look up and found himself the center of obser-vation her cover his defence to the

him. When the prisoner happened to look up and found himself the center of observation, he at once cast his glance to the floor again, and a moment later great tears were seen rolling down his face.

"Come now," said the big man with a bleck mustiche who sat at his side, "what are you blubbering about?"

The other made no answer, but wept silently. The eyes of some of the lady passengers began to grow moist. Presently a sweet-faced old lady came over to the seat where the prisoner sat and said, with tears streaming down her face:

"I can't tell you how much I feel for you, but please let me give you this Bible, and please promise to read it. You don't know how much it will comfort you."

Other hales were crying, too, by this time, and some of the male passengers felt called upon to blow their noses rather oftener than usual. But the black-mustached man, who as next to the prisoner, seemed to restrain language with some difficulty, and he finely stuffed to the end of the car.

"You've a britte?" astel as old greatlement. he car. "You're a brute," said an old gentleman,

"You're a brute," said an old gentleman, who sat near the door.
"I suppose so," said the black-mustached man, gruilly; "but if you'd taken as many men up the river as I have you'd laugh, too, when the passengers went slily over 'em."

When the train stopped at Sing Sing the fou men arcse, and, with the prisoner in the middle, walked out of the car, while the passengers opened their windows and gazed at them on the platform. Just before the train started on one of the men brought back the Bible and Landed it in the window it is owner. to its owner,
"He can't read," he said.

"He can't read," he said.

Then, to the excitement of everybody, the prisoner suddenly bolted up the road, and before the two men left with him could recover their senses he had a hundred feet start. All three rushed after him; but, to the disgust of the passengers, the train started away and they were unable to witness the denonement.

ness the denouement.

After the train had gone the prisoner, to After the train had gone the prisoner, to the surprise of the hands, came back to his jailers, and all four hunghed long and loud. The four men were Mackay, the comedian; Edward Aronson of the Casino; Robert Hilliard and Maurice E. Strauss, who were on their way to visit Sing Sing prison, and had "played" Mackay off as a prisoner for their own anutsement.
"It made me feed mean to take in that nice old lady," said Mackay; "but I can lick the conductor who said I looked desperate."

Nothing Like It.

[New York Sun.] Never was such a last testament known Sever was such a last testament known of mortal as that printed in the Sun yesterday. Kings have died with full treasuries, emperors have field their realms with bursting coffers, great financiers have played with millions, bankers have reaped and sowed and reaped again, great houses with sowed and reaped again, great houses with vist acres have grown and grown and still cxist; but never before was such a spectacle presented of a plain ordinary man dispensing, of his own free will, in bulk and magnitude that the mind whilly fails to apprehend, taugible millions upon millions of paipable money. It is simply grotesque. The numerical significance of a million is incomprehensible; it can only be measured relatively and by illustration, and when it comes to dealing with hundreds of millions the understanding is overwhelmed and helpless. Mr. Vanderbilt gave them right and left, as if they were ripe apples. And it came out of Wall street. How many dollars of that immeasurable volume of riches were made in the channels of legitimate commerce. In manufactures, in

many gollars of that immeasurable volume of riches were made in the channels of legitimate commerce, in manufactures, in the fruition of toil, the accretion of improved realty, or in any strictly normal fashion whatever? It is the most extraordinary consideration connected with it that it was mostly acquired by that form of modern industry which consists simply in getting the better of somebody. Not gambling, by any means, although it is commonly classified as gambling, and is gambling so far as the majority of its practitioners are concerned. But for the paternal Vanderbill and his late son it was something very different. It was the same art as that of the sublimated peddier who flew his pigeons from Waterloo to London and founded the greatest banking house in the world—the art that controls speculation and is never subjected to its vicinalities. To buy a thing at less than its value and to sell it at what it is not worth defines the principle time is involved. It is what all who specular to the total for the world of the controls and the world of the subline in the world—the art that controls specular walue and to sell it at what it is not worth defines the principle time is involved. It is what all who specular seeds to declare the principle time is involved. defines the principle that is involved. It is what all who speculate seek to do. It is what all who speculate seek to do. It is what the Vanderbilt could do and did. Dumas gave Monte Cristo only a beggarly pittance compared with what Vanderbilt left to each of eight children. And it came out of Wall street in a few years.

And it came out of wall street in a raw years.
So extraordinary an example caunot be without effect. The conviction must be to many unavoidable that if other hands could wrest such prices from that whiripool of demonitration their chances are as good as demonitization their cliances are as good as any. For such it is gambling, pure and simple; and they are impervious to the lesson that is taught by the career of men like Vanderbilt, which shows that sooner or later the spoils must fall to the man behind the table, the man who, instead of taking the chances, controls them. It was Mr. Gould who said, "I never speculate." Neither did the commodore, and neither did his son. They left it to the public to do that.

Berns cutirely vegetable, no particular care is required while using Dr. Pierce's "l'hasant Purpative Pellets." They operate without disturbance to the constitution, diet, or occupation. For sick headache, constigution, impure blood, disdness, sour crustations from the stomach, but usile in mouth, billious attacks, pain in region of the kidneys, internativever, bloated decling about the stomach, rush of blood to head, take Dr. Pierce's Fellets." By druggists.

Shows Up Smilling in the Final Bound (Providence Journal.)

Hen. Wm. R. Morrison is at present victorious over the Hon. Samuel J. Randall, but it would be well for him not to rejoice too loudly until the session is over. The Pennsylvania statesman is a long-winded date.

One Benson's Captine Plaster is worth a dozen of any other kind. Between the numerous varieties of porous plasters there is but one choice. Ement's plaster is modern, scientifie, prompt in action, safe, pleasant to wear, cleanly, and cores alments in a few hours which no others are able even to relieve. This fact is testified to by 5,000 physicians, pharmacists, and druggists, voluntarily, and over their own written signatures. Imilations of Benson's plaster, under the name of 'Captions,' "Captions," "Captions," "Captions," "Captions," "Captions," "Captions," "Captions of Benson's Plaster, and as that the "Three Seals," trademark is not the face that the "Three Seals," trademark is out the face doth and the word 'Caption' is poroused in the middle of the plaster itself.

INTELLIGENT MONKEYS. How They Killed a Bon Constrictor

With a Rock, An officer stationed at Kalladgee, in India, was once climbing a rocky hill, when he and a native who accompanied him witnessed the following episode: A poor moukey was being slowly en wrapped in the vokey was being slow; yen wrapped in the vo-luminous folds of an enormous bon, its bones breaking like pipestems by the press-ure. Gradually the reptile unwound itself, leaving a crushed, unrecognizable unass. The numerous monkeys on the rock were in the greatest state of excitement, running wildly about, gesticulating, chattering, and mounting, though of course powerless to help their courade. While the snake was remunering its rorre, and before its body mounting, though of course powerless to help their coursels. While the snake was counseneding its gorge, and before its body began to fill and swell, the officer and native went in quest of a stout codigol and a sharp kuffe, expecting to make it an easy prey as soon as it should be filled to repletion. When they returned to the seems of the strife the boa hay thoroughly gorged beneath a projecting mass of cliff, looking more like a log than saything more lively. On the summit above a troop of monkeys were assembled, and three or four of the largest and strongest were occupied in displacing a massive fragment of rock, already loosened by the rains from the main ledge. By enormous exertion—made, too, with a silence quite unusual to monkeys—they at length succeeded in pushing the rock until it trembled just over the bea's bead; then, uttering a yell of triumph, they dropped it over the miniature precipice. It struck the boa on the head, amashing it to a jelly. As its great struggle there was a general chorus of excitation—man ioulus his near rejuiter if struggle there was a general chorus of ex-ultation—man joining his near relative, if we believe some of our instructors—over this well-accomplished act of vengeance.— [Good Words.]

A New Portratt of Gen. Lee. When Gov. Marmaduke, of Missouri, was n New York some time since he was rations to obtain a good steel engraving of ien. Grant and one of Gen. Lee for the ex-Gen. Grant and one of Gen. Lee for the exccutive mansion at the capital of his state,
lie had no difficulty whatever in fluding a
number of excellent portraits of Gen. Grant,
but failed to obtain one of Gen. Lee that
was at all satisfactory. This led to a suggestion from him that John R. Reavis, of
the New York World, should undertake
the bringing out of a good steel engraved
portrait of Gen. Lee. He said the time had
passed when the animostiles created by the
war would interfere with the just appreciation of a work of this kind; that the
death of Gen. Grant, the generous expressions toward his opponents in arms that fell
from his lips during his last illness, and the
publication of his personal memoirs would
bring once more prominently before the
public the leader of the confederate armics,
and that he believed a faithful likeness public the leader of the confederate armies, and that he believed a faithful likeness would be well received. Mr. Reavis went to work at once to find materials from which the pertrait abuild be engraved, and has adopted a photograph that meets with the opprobation of Gen. Lee's son, Gen.

Custis Lee.
This photograph, with other materials, has been placed in the hands of Wm. E. Mirshall, whose portraits of Washington, Grant, Lincoln, and other distinguished Orani, lancoin, and other distinguished Americans have given him the first place as the engraver of portraits on steel in this country and Europe. He has begun his work with enthusiann, and will finish it early in the new year.

Palo Alto Stock Farm [New York Sportsman.]

Palo Alto stock farm, the magnificent catate recently dedicated by Senator Stanford to a California university, takes its mame from a gigantic tree known as the Palo Alto pine, which rears its crost heavenward, a conspicuous mark for all residents of the fertile San Francisquita valley, in which Palo Alto is situated. A little over a quarter of a mile from the station is a bridge across the San Francisquita creek, and on the left, close to the edge of the ravine, is the famous Palo Alto, or lofty redwood pine, which is a landmark for all the country round. Nobody knows the age of the Palo Alto. It is about sixty feet tail, and is beautiful and majestic in form. There are not for many miles around any native redwoods. The twin brother of this one stood by it and was equally conspieuous and strong, but a few years ago was washed out of the soil by a freshet, and it now lifes on the ground close to the bed of the stream. The senator has secured it so that it cannot be carried away by the young floods of the spring. The Palo Alto can be seen from every point of the valley, and, of course, from all the surrounding hills as far as the eye can reach. Senator Standford, next to his love of horses, loves the old forest trees. He is quoted as having said that he would as soon sacrifice the best horse he owns as this majestic tree, the time-honored Palo Alto pine. Palo Alto stock farm, the magnificent estate recently dedicated by Senator Stan-

Our Sale Of retailing clothing at wholesale procontinues with unabated success. I Bios., corner 7th and E streets.

EXECUTIVE DEPARTMENTS. Officers of the Departments and Their Residences in Washington.

DEPARTMENT OF STATE. Secretary of State-T. P. Bayard, 1413 Mass. e. Assistant Secretary-J. D. Porter, Riggs second Assistant Secretary—Wm. Hunter, N st., W. Wash. Assistant Secretary-Alvey A. Adee, Fifth st. n. w. hief Clerk-Sevellon A. Brown, 1500 13th Chief Cierk—Seveilon A. Brown, 1500 13th st., lows circle.
Chief of the Diplomatic Bureau—Sidney Everett, 1734 1st.
Chief of the Consular Bureau—F. O. St. Clair, 1428 R. I. swe.
Chief of the Bureau of Archives and Indexes
—John H. Hasswell, 1219 O. St.
Chief of the Bureau of Statistics—Worthingten C. Ford, "The Milton."
Chief of the Bureau of Rolls and Library—
Theodore F. Dwight, 229 N. J. avc. s. e.
Passport Cierk—N. Benedict, 1621 Q st.
TREASURY DEFARTMENT.
Secretary of the Treasury—Daniel Manning

Fecretary of the Treasury—Daniel Manning 501 18th st. n. w.
Assistant Secretary—Charles S. Fairebild, Assistant Secretary—Churles S. Fairchild, 317 Conn. ave. Assistant Secretary—William E Smith, Arington Hotel. Chief Clerk—E. B. Youmaus, 1529 Coun, ave. Appointment Division—Chief, Eugene Hig-Appointment Division—Chief, Eugene Hig-ins, Baltimore, Warrant Bivision—Chief, W. F. Maciellan, n. w. Moneys-Chief, Eugene B. Daskam, Division-Chlef, John R. Macgregor, Custems Division—Chlof, John R. Macgregor, 1902 H at. n. w. Mercaullic Marine and Internal Revenue Division—Chlof, Darius Lyman, 1 Grant place. Revenue Marine Division—Chlef, E. W. Clark, Woodley road, n. w. of city. Sationery Division—Chlef, A. L. Sturtevant, Howard ave, Mount Pleasant. Loaus and Currency Division—Chlef, William Fletcher, 615 Mat. n. w. Mail and Files Division—Chlef, Valentino P. Snyder, 290 Mat. st. Caytored Property, Claims, and Lands Division—Chlef, vaccint. son—Chief, vacant.
Supervising Special Agent of the Treasury
Department—L. O. Martin, Ballitaore.
Government Actuary—E. B. Elliott, 1210 O at W. Disbursing Clerk—George A. Bartlett, Park., Mount Pleasant,
Disbursing Clerk—Thomas J. Hobbs, 1622

H st.
Private Secretary to Secretary of the Trensury-Themas J. Brennan, 913 French at,
SEPROVISING ARCHITECT'S OFFICE.
Supervising Architect—M. E. Bell, 1833 Verchief Clerk-Vacant. BUREAU OF ENGRAVING AND PRINTING, 14TH AND INTELECTS S. W. Chief of Bureau—E. O. Graves, 1700 14th st.

Assistant Chief-Thomes J. Sullivan, 1530 9th Accountant-Edwin Lamasure, 216 12th st. Engraving Division—Superintendent, John A. O'Neill, 1464 R. I. ave. OFFICE STEAMBOAY INSPECTION.
Supervising Inspector General-James A.
Supervising Ast. 8 c.

BURNAU OF STATISTICS. (Young's building, 467 18th st.) Chief of Bureau-W. F. Switzler, 707 12th . II W. Chief Clerk-J. N. Whitney, 1827 I st. Examining Division—Chief, E. J. Koferstoin, Compiling Division—Chief, William Bur-ard, all 12th st. Totinase and fermigration Division—Chief, T. Welch, 621 A st. n c. Miscellateous Division—Chief, E. J. Kefer-in, 1850 Kingman place. oin, 1500 Kingman place. Stationery, Psy. and Property—Chief, J. D. Council, 508 12th st.

General Saparine sanvice,
General Saparine medett—S. I. Kimbali, 511
danie av. Le Droit ParkAssistant General Superintendent—W. D.
FComor, 1015 Ces. FIRST COMPTROLLER'S OFFICE, First Comptroller—M. J. Durinau, 1851 G. f. Deputy Comptroller—J. R. Garrison, 628 B

lareous Accounts—Sias C. Clarke, chlet, 501 Stanton place a c.
Division of Warrants and Appropriations,
Public Lands, and Territorial Accounts—Is it.
Mangum, chief, 97 18th at.
Division of United States Transucer's Accounts for Learn, Receipts and Expenditures,
Accounts of Assistant Treasurers, Mint and
Assay Offices, &c.—Z. M. Lawrence, chief, 1819
Q 84. st.
Division of Foreign Intercourse and District
of Columbia Accounts—John Walker, clerk in
therm. 1011 M st.
HECOED CONTROLLER'S OFFICE. Comptroller—J. H. Maynard, 20 Lefayettu sq. Deputy—R. R. McMahon, 1709 F st. n w. Army Pay Division—Jerome Lee, 2811 P st.

lameons Accounts-Silas C. Clarke, chief, 501

W. Navy Division—George H. French, 1701 T st. n W.

Gintermasiers' Division—Benjamin S. Piko,
Gintermasiers' Division—Benjamin S. Piko,
Gintermasiers' Division—Benjamin S. Piko,
Miscellancous Division—B. W. Shadle, National Hotel,
Army Fension Division—T. O. W. Roberts,
Frince George county, Med.
Commissioner—John S. McCalenont, 1037 G
84 n W.

B W. Deputy-H. A. Lockwood, corner 1st and B forms Division-Chief, E. Jones, 507 6th Bond Division-Chief, B. F. Cutter, 631 E Cap st.

Hisbursing Officer's Division—Chief, N. H.

Thompson, 13th Higgs at a w.

Division of Appointments and Refunds—Chief, M. F. Holohan, 11th 19th at a w.

Stub Division—A. J. Ganning, 13th E Cap at.

REGISTER OF THE TREASURY.

Register—W. S. Rosecrans, Willard's Hotel,

Ambitant Register—Ross A. Fish, 125s Va ay

w.

s w. Note, Coupen, and Fractional Currency Di-vision—Chief, L. W. Reli, Alexandria, Va. Loan Division—Chief, James R. Suced, 1228 11th st n w. Receipts and Expenditures Division—Chief, J. H. Beatty, 128 11th st s c.

22) whist is w. Public Debt Division—Chief, John P. Bent-ley, 05 List. n w. Warehouse and Bond Division—Chief, A. P. McMillan, 1814 53th st. n w.

SECOND AUDITOR. (Winder's building, west of War Department.) Auditor—W. A. Day, 27 Iowae irde,
Deputy—Henry C. Harmon, Howard ave.,
Mount Plensant, D. C.
Peymariers' Division—Chief, David Okey,
804 10th 8t. n. w.,
Bookkeepers' Division—Chief, Thomas Rathbone, 218 21 st. n. e.
Indian Division—Chief, Charles C. Snow, 1216
6 st. n.w. st. Bw. Pay and Bounty Division—Chief, H. A. Whallon, Virginia.
Investigation of Frands Division—Chief, F.
H. Geodall, 314 F st. n w.
Property Division—Chief, Charles Lowell,
Sel 25th st. n w.
Grdnance, Medical, and Miscollaneous Divi-sion—Chief, A. H. Gambrill, 1111 11th st. n w. THER AUDITOR.

Auditor—John S. Williams, 25 Lafayette

Deputy-William H. Welsh, Baltimore, Md. Military Division-William S. Kleer, 2216 G t. n.w., Pensions Division—I. B. Hussey, 131 Qat. n.w., Horse Claims—Oscar I. Harvey, 11 Fourth Chims—W. S. Stetsou, 1412 Sixth at. n.w., Collection Division—Joseph R. Owens, Hy-and station, B. and O. Miscellancous—I. A. Swarts, 125 E st. n.w., Hookkeepers' Division—J. F. Jones, 1120 N

POURTH AUDISOR. POURTH AUDISON.
Auditor—C. N. Sacil, 1707 R. I. ave.
Deputy—Benjamin P. Davis, Pine street,
Noral Pierrant, D. C.
Record and Frize Division—Chief, B. P.
Limmack, 1704 S. H. W.
Nayy Agents Division—Chief, J. M. Wright,
1705 B. H. a. W.
Parmasters Division—Chief, A. C. Ervin,
S16 Ibh st. n. W.
Pension Division—Chief, Richard Goodhart,
174 Illh st. sc.
Claim Bivision—Chief, Richert Kearon, 614 124 lith st s.e., Claim Division—Chief, Robert Kearon, 614 M st. h W. st. h w. Scokkeepers' Division—F. C. Severance, 1727

T st. h w. FIPTH AUDITOR.

Auditor—Authory Elekhof, 977 M. J. hw.,
Leputy—J. H. Mann, 1919 Mass, av.
Internal Revenue Collectors Division—Chief,
R. B. Detrick, Knowles Station, Md.
Miscellaneous Division—Chief, Endicott
King, 1318 19th at,
Diplomatic and Consular Division—Chief,
A. O. Latham, 1306 R st.

A. O. Latham, 1300 R st.

THEASCHER OF THE UNITED STATES.

Treasurer—C. N. Jordan, 1527 P st. u.w.
Ashistant Treasurer—J. W. Whelpiey, 803
East Capitol st.
Chief Clerk—James F. Melline, Burnt Mills, Cashier—H. A. Whitney, 1222 11th st. n.w. Assistant Cashier—E. R. True, 933 N. Y. ave Paying Teller -A. R. Qualife, The Portnd. Receiving Teller-William H. Gibson, 2435 K st. n w. Assistant Teller—James C. Poynton, 478 O st. Assistant Teller—Gideon C. Bantz, Baltimore, Md.
Redemption Division—Chief, Charles H.
Davidge, 1803 Q st. n w.
Loan Division—Chief, Ferdinand Weiler, 1816
V st. n w.
Accounts Division—Chief, D. W. Harrington,
near Alexandria, Va. near Alexandria, Va. Division of Issues—Chief, C. L. Jones, 1215 20th st., n. W. National Bank Division—Chief, Jerome C. Burnett, 205 5th at. s. Principal Bookkeeper-Sherman Platt, 1705 Principal Scokeceper—Serrman Finit, 1705
12th 8t, in W. Bookkeeper—A. D. Johnson, 1332
V 8t. n W.
National Bank Redemption Agency—Super-intendent, T. E. Rogers, 400 Spruce st., Le Droit
Park.

COMPTROLLER OF THE CURRENCY. Comptroller-Henry W. Cannon, 1323 K st Deputy Compiroller—John S. Langworthy, Deputy Compiroller—John S. Langworthy, Division of Reports—Chief, Robert J. Mayleld, 718 E. Cap. 8: Redemption Division—Chief, A. B. Dickerson. Division of Issues—Chief, Edward S. Peck, Mount Pleasant.
Organization Division—Chief (vacaucy).
Bend Clerk—Win. D. Swan.
COMMISSIONER OF INTERNAL REVENUE.
Commissioner—Joseph S. Miller, 1202 R. I.

ave.

2 Deputy—H. C. Rogers, 1520 S at n w.

Solicitor—Charles Chesley, 641 East Capitol at.
Chief Clerk and Appointment Division—John
D. Biddis, 1339 J. st. n w.
Law Division—Assistant solicitor (see chief-clerk).
Tokacco Division—Chief, Israel Kimball, 238
North Capitol at n. North Capitol at. n.e. Law Division—Chief, O. P. Dana, 1529 R. L. av. Stamp Division—Chief, A. H. Holt, 1015 K st.

Assessment Division-Chief, C. A. Bates, 1016 Assessment Division—Chief, C. A. Bates, 1016
Tet, B. W.
Division of Distilled Spirits—Chief, T. C. Cushing, 95 Fet, B.
Division of Revenue Agents—F. D. Sewall, 1321 N. Y. ave.
BIRECTOR OF THE MINT,
Director of the Mint—James P. Kimball, 1311
N. H. ave.
Framither—R. E. Preston, 53 K st. n c.
Computer of Buillon—E. G. Leech, 1510 S st. n w.

w. Assayer—Winfield P. Lawver, 1912 I st. n w. Adjuster—Frank P. Gross, 1812 R st. n w. BUREAU OF NAVIGATION. Commissioner of Navigation—Jarvis Patten, 114 18th stri w. Acting Departy Commissioner—Thomas B. Sanders, 1410 10th st.

anders, 1410 10th st.

Chairman—Vice Admiral Stephen C. Rowan,
1.8. N. Ebytt House.
Navai Secretary—Commaniser Honry F. Picking, U. S. N. 1708 H st m w.
Engineer Secretary—Maj. David Porter Heap,
1.8. A. 1018 E. Lave.
Chief Cierk—Arnold B. Johnson, Le Broit
'ark. MARINE HOSPITAL BRRVICE.

MARINE HOSPITAL SRIVICE.

(Supervising Surgeon General's Office, 11th G supervising Surgeon General-John B. Hamilton, 18 st. n. w. Capitol Square.

Chief Purveying Division—Surgeon George W. Stoner, 1201 Gst. n. w.

Acting Chief Clerk—Patriax Irwin, passed assistant surgeon, 2124 K. st. n. w.

WALL DEFAITMENT.

Secretary of War—William C. Endicott, 1313 16th st. n. w.

Chief Clerk—John Tweedale, 901 R st. n w. Disbursing Clerk—E. M. Lawton, 1741 24th Record Division—Chief, 6, Hodguin, 312 Pa. v. n.w. av. n.w.
Correspondence Division—Chief, Jay Signe,
Tife P at. n.w.
Requisition and Accounts Division—Chief,
L.W. Tohnan, 94 East Capitol st,
Private Secretary and Stenegrapher—C. S.
Sweet, 1917 M st. n.w.
Officer on Duty—Capt. C. H. Hoyt, A. Q. M.,
U. S. A., 1011 16th st. u.w.

NAVY DEPARTMENT. Secretary of the Navy-Wm. G. Whitney, 177 Mass. ave. Chief Clerk-John W. Hogg, 1993 R at. Disbursing Clerk-F. H. Stickney, Hopeton, th st. road. th st. road. Registrar—Wm. P. Moran, 2112 Penndave. Private Secretary and Stenographer—B. W. Innna, 2218 G st. OFFICE OF THE GEOLOGICAL SURVEY. GPFICE OF THE GROLEGICAL STRUEY, (Hose Building, F. st., bet. 12th and 14th n. w.) Director—J. W., Powell, 910 M. st., n. w., Chief Clerk—James C. Pilling, First M. st., n. w., Chief Disturging Clerk—John D. McCheanay, 1611 13th st. n. w.

EURAU OF LABOR.

(Kelloeg Building, Fat., bet 11th and 15th u.w.)

Commissioner—Carroll D. Wright, 1835 N Division of Judiciary Accounts-Vacant. Division of Internal Revenue and Miscalt. n.w. Chief Clerk-Oren W. Weaver, 814 15th at. n.w.



INVALIDS' HOTEL TO SURGICAL INSTITUTE

No. 663 Main Street, BUFFALO, N. Y.

Not a Hospital, but a pleasant Remedial Home, organized with

A FULL STAFF OF EIGHTEEN PHYSICIANS AND SURGEONS.

And exclusively devoted to the treatment of all Chronic Diseases.

This imposing Establishment was designed and erected to accommodate the large number of invalids who visit Buffalo from every State and Territory, as well as from many foreign lands, that they may avail themselves of the professional services of the Staff of skilled specialists in medicine and surgery that compose the Faculty of this widely-celebrated institution.

A FAIR AND BUSINESS-LIKE OFFER TO INVALIDS.

We carnestly invite you to come, see and examine for possestly, our institutions, appliances, advantages and auccess in curing chronic diseases. Have a mind of your own. Do not listen to or heed the counsel of skeptical friends or jealous physicians, who know nothing of us, our system of treatment, or means of cure, yet who never loss an opportunity to misrepresent and endeavor to prejudice people against us. We are responsible to gou for what we represent, and if you come and vist us, and find that we have misrepresented, in any particular, our institutions, advantages or success, we will promptly refund to you after expenses of your trip. We cour honest, sincere investigation, have no secrets, and are only too glad to show all interested and candid people what we are doing for suffering humanity.

NOT ALWAYS NECESSARY TO SEE PATIENTS.

By our original system of diagnosis, we can treat many chronic diseases Juss, as successfully without as with a personal consultation. While we are always glad to see our patients, and become acquainted with them, show them our institutions, as d familiarize them with our system of treatment, yet we have not seen one person in five hundred whom we have cured. The perfect accuracy with which secentists are citabled to deduce the most minute particulars in their several departments, appears almost miraculous, if we view it in the light of the carrier and another invention of the age. Is it not a marvelous degree of accuracy which embles an operator to exactly locate a fracture in a submarine cable nearly three thousand miles long? Dur veneration of the age. Is it not a marvelous degree of accuracy which embles an operator to exactly locate a fracture in a submarine cable nearly three thousand miles long? Dur veneration of the most wayward elements of nature that he can accurately predict their movements. He can sit a Washington and foretell what the weather will be in Florida or New York as well as if several hundred miles did not intervene between him and the places named. And so in all departments of modern science, what is, required is the knowledge of certain signs, or symptoms, and by reason of this fact, we have been embled to originate and persent a seigns, or symptoms, and by reason of this fact, we have been embled to originate and persent a signs, or symptoms, and by reason of this fact, we have been embled to originate and persent a securicy, the nature of chronic diseases, without sceing and persent accuracy,

cxamining our patients. In recognizing diseases without a personal examination of the patient, we claim to possess no mirrorilous powers. We obtain our knowledge of the patients disease by the practical application, to the practice of medicine, of well-established principles of modern science, And it is to the accuracy with which this system has endowed us that we ove our simost world-wide reputation of skillfully treating lingering or chronic affections. This system of practice, and the marvelous success which has been attained through it, demonstrate the fact that discoses display certain plenomena, which, being subjected to scientific analysis, furnish abundant and unmistatable dual, to guide the frequenting the mature of diseased conditions. The most ample resources for treating lingering or chronic diseases, and the greatest skill, are thus placed within the easy reach of every invalid, however distant he or she may reside from the physicians making the treatment of such affections a specialty. Full particulars of our original, seisnific system of examining and treating patients at a distance are contained in "The People's Common Sense fred leaf Adviser," By R. V. Pierce, M. D. 1000 pages and over 100 colored and other illustrations. Sent, post-paid, for \$1.50. Or write and describe your symptoms, inclosing ten cents in stamps, and a complete treatise, on your particular disease, will be sent you, with our terms for treatment and all particulars.

COMMON SENSE AS APPLIED TO MEDICINE.

It is a well-known fact, and one that appeals to the judgment of every thinking person, that the physician who devotes his whole time to the study and investigation of a certain class of diseases, must become better qualified to treat such diseases than he who attempts to treat every iii to which field is heir, without giving special attention to any class of diseases. Men, in all ages of the world, who have become famous, have devoted their lives to some special branch of science, art, or literature.

By thorough organization, and subdividing the practice of medicine and surgery in this institution, every invalid is treated by a specialist—one who devotes his undivided attention to the particular wass of diseases to which the case belongs. The advantage of this arrangement must be obvious. Medical science offers a vant field for investigation, and no physician can, within the brief limits of a life-time, achieve the highest degree of success in the treatment of every malady incident to humanity

OUR FIELD OF SUCCESS.

Recognizing the fact that no great mistitution dedicated exclusively to the treatment of chromic discusses, would meet the needs of the adlicted of our land, without the most perfect, complete and extensive provision for the allicted of our land, without the most perfect, complete and extensive provision for the most improved treatment of discusses of the air-passages and lungs, such as Caronic Nasal Catarrh, Laryngmands this branch of our institution one of the leading Departments. We have every kind of useful instrument for examining the organs involved, such as rimoscopes, laryngeocopes, stethescopes, spirometers, etc., etc., as well as all of the most approved kinds of apparatus for the application of sprays, fuminations, atomizations, pulverizations, finalations, and all other forms of approved medicinal applications.

We publish three separate books on Nasal, Threat and Lang diseases, viz.: A Treatise on Consumption, Laryngitis and Bronchits; price, postpaid, ten cents; A treatise on Asthms, or Phthist, giving now and successful treatment; price, postpaid, two cents.

Bysperica, "Liver Complaint," Ob-

DISEASES

OF DISEASES DI

STRICTURE.

STRICTURES AND URINARY FISTULZE.—Hundreds of cases of the worst form
of strictures, many of them greatly aggravated
by the careless me of instruments in the hands
of inexperienced physicians and surgeons, causling falso passages, usinary listuie, and other complications, annually consult us for reliof and cure. That no case of this class is
too difficult for the skill of our specialists is proved by cures reported in our illustrated freatise on these maindles, to which we
refer with pride. To intrust this class of cases to physicians of
small experience, is a dangerous proceeding. Many a man has
been ruined for ille by so doing, while thousands annually lose
their lives through unskillful treatment. Send particulars of your
case and ten cents in postage stamps, for a large, liustrated freatiss containing many testimonials.

NERVOUS
DISEASES.

Paley it shows a strong to the result of the strong and the st

home physicians) has 'be benefit of a full Council composed of skilled specialists. Our Department and rooms for ladies in the Invalide Hotel and Sunposal Institute are so arranged as to be very private, and free from the annoyances so common in other institutions. Send ten cents in postage stamps for our large Complete Treatise on Diseases of Women, illustrated with nume-rous wood-cuts and colored plates.

and colored plates.

PILES, FISTULA IN AND, and other discases affecting the region of the lower bowel, are
largely treated, and with marvelous success, by
specialists, who give their whole time to the study
and treatment of this class of affections. We never
full to cure pile tumors, however large. When the
patient can come here for treatment, we will
a cure. TUMORS. Fortunated a cure pile tumors, however large. When the patient can come here for treatment, we will search the cancellar and the companies of the companies of

CURES GUARANTEED in every case undertaken.
Can any sufferer ask for greater inducements than these?
Notwithstanding the great number of ruptures treated in the three years past, many of them of immense size and of such a character that no other plan of treatment could possibly have succeeded, every case to which this perfected system of treatment has been thoroughly applied, has been perfectly cured. Only a few days residence at the invalids' Hotel and Surgical institute is necessary.

necessity.

Abundant references, by permission of those whom we have appeared, will be furnished to any one wishing to call upon or write An illustrated treatise on Rupture sent to any address upon receipt af two cents.

An illustrated treatise on Rupture sent to any address upon receipt af ten cents.

Organic weakness, nervous debility, premature decline of the mainly powers, involuntary vital losses, and kindred affections, are speedily, thoroughly ample permanently carred.

To those acquainted with our institutions it is hardly necessary to say that the invalids Hotel and Surgical Institute, with the branch establishment for many years enjoyed the distinction of being the most inrictly patronized and videly celebrated institutions in the world for the treatment and care of those affections which arise from youthful indiscretions and perificious, solitary practices.

We, many years ago, established a special bepartment for the treatment of these discases, under the management of some of the most skillful physicians and surgeous on our Staff, in order that all who apply to us might receive all the advantages of a full Council of the most experienced medical men.

We flerce We effer no appolory for devoting so much sitten-

Council of the most experienced medical men.

WE OFFER We offer no apology for devoting so much attended to the most experienced medical men.

WE OFFER We offer no apology for devoting so much attended to the control of the mainty is too wretched to merit to applicate of the above the devoting of application of humanity is too wretched to merit to applicate the most of the profession to which we belong. Many who suffer from these terrible discusses contract them innocently. Why any medical man intent on doing good, and alleviating suffering, should shun such cases, we cannot imagine. Why any one should consider it otherwise than most knonowable to cure the worst cases of these discusses, we cannot understand; and yet of all the other maladies which allies much there are probably none about which physicians in general practice know so luttle.

We fully agree with the celebrated Dr. Bartholow, who says, "I whink it a reproach to our prefereion that this subject has been permitted, in a measure by our own indifference, to pass into the hands of unaccupillous preferiors. Hectives the subject has been permitted, in a measure by our own indifference, to pass into the hands of unaccupillous preferiors. Hectives the subject is disagreeable, competent physicians are lought to be concerned with it. The same unnecessary insighousness causes the treatment of this malady to be avoided in private practice.

We fall, therefore, continue, as haseletore, to treat with our best consideration, sympathy, and skill, all applicants who are saffering from any of these delinate diseases.

Our Complete and Illustrated Treatise on these subjects is sent to any address on receipt of the subject is stated as a fall of the contended in statups.

ALL CHERONIC DESEASES A SPECIALTY.—Although

ALL CHRONIC DISEASES A SPECIALTY .- Although we have, in the preceding paragraphs, made mention of some of the special almosts to which particular attention is given by the specialists at the invalue Hotel and Burgical Institute, yet the institution abounds in slell, facilities, and apparatus for the successful treatment of every form of chronic allment, whether requiring for its ture modical or surviced means. All letters of inquiry or of consultation should be addressed to

WORLD'S DISPENSARY MEDICAL ASSOCIATION, 633 Main Street, BUFFALO, W. Y.